

REMARKS

INTRODUCTION

In accordance with the foregoing, claim 5 has been amended. No new matter has been submitted.

Claims 1-20 are pending and under consideration. Reconsideration of the allowability of the claims is respectfully requested.

ENTRY OF AFTER FINAL AMENDMENT

It is respectfully requested that this after final amendment be entered. As the above amendments are in response to the outstanding §112 rejection, it is respectfully submitted that these amendments should have been expected upon the issuance of the outstanding rejection. Accordingly, it is respectfully submitted that the above amendment to claim 5 does not raise new issues.

As noted below, the specification already supported the claimed invention's potential concurrent reception of both analog and digital broadcast signals.

Further, the remaining independent claims, which could not be interpreted as limiting their respective claimed inventions to only analog or digital reception, already included this claimed feature, i.e., that the claimed invention is not limited to receiving only analog or digital reception. The pending issues, already raised, included reasonable interpretations of the claims covering a scope of "selecting" one of the analog or digital broadcast signals and, correspondingly, "receiving" the respective analog and/or digital broadcast signals.

Thus, the claim amendment to claim 5 does not raise new issues or add new features, not already considered.

Lastly, it is further submitted that, in view of the below comments, the outstanding rejection of claims 18-20 have also been overcome, thereby placing the application in condition for allowance.

Accordingly, in view of the above, entry of this Amendment, and reconsideration of the allowability of the pending claims is respectfully requested.

REJECTION UNDER 35 USC 112

Claims 5-10 stand rejected under 35 USC 112, first paragraph, as the Examiner does not believe there is sufficient disclosure in the specification to support the claimed "the" synchronous signal, in reference to digital broadcast signal receptions, since claim 5 is being interpreted as only permitting the synchronous signal to be detected during the analog broadcast reception.

It is noted that this rejection may have been more appropriately brought under 35 USC 112, second paragraph, as the mischaracterizing of the proper "digital" and "analog" broadcasting signals, presently amended in claim 5, would appear obvious in view of the present specification. Similarly, the present specification clearly describes the potential concurrent reception of digital and analog broadcasting signals, while only "selecting" one of the same. Therefore, it is respectfully submitted that the error in claim language is more one of an indefinite nature or objectionable, rather than an enablement matter.

Regardless, it is respectfully submitted that independent claim 5 should not be interpreted as only permitting the synchronous signal to be detected during the analog broadcast signal reception. Further, a reception of a digital broadcast signal is concurrently possible with reception of an analog signal, contrary to the interpretation in the Office Action. The fact that independent claim 5 recites when particular operations/units can occur/operate, the claimed invention is not limited to that occurrence/operation, e.g., the recitation that something occurs when the analog broadcast signal is chosen does not mean that it cannot also occur when the digital broadcast signal is chosen, the recitation merely means that the operation must be capable to at least do it when the analog broadcast signal is chosen.

Further, it is respectfully submitted that there is a difference between "selecting" one of the analog or digital broadcast signals and "receiving" the analog and digital broadcast signals. The digital broadcasting signal can be selected, e.g., for output, and both the analog and digital broadcast signals can be received. Likewise, the analog broadcasting signal can be selected, and both the analog and digital broadcast signals can again be received. Alternatively, the presently claimed invention also covers the occasion that only the digital broadcast signal is received when the digital broadcast signal is selected and only the analog broadcast signal is received when the analog broadcast signal is selected. These interpretations are also applicable to the remaining claims.

As an example, the Substitute Specification, paragraph [0048], sets forth:

"[t]he digital broadcasting receiver also includes a synchronous separation unit 207

which separates the synchronous signal from the analog broadcasting signal of the corresponding analog broadcasting channel, which channel is tuned by the air tuner 200b of the tuning unit 200, and outputs the same."

Thus, the specification also supports the interpretation that digital broadcast signal reception can occur at the same time as analog broadcast signal reception.

Though inherent in independent claim 5, to further clarify that the detection of the synchronous signal is not limited to occur only during the analog broadcast signal selection, independent claim 5 has been amended to remove the previously added "when the analog broadcasting signal is selected," in this claimed feature.

Accordingly, it is respectfully requested that this rejection be withdrawn.

REJECTION UNDER 35 USC 103

Claims 18-20 stand rejected under 35 USC 103 as being obvious over Bestler et al., U.S. Patent No. 5,638,112, in view of Furumiya et al., U.S. Patent No. 5,298,998, and Choi et al., U.S. Patent No. 5,633,688. This rejection is respectfully traversed.

By way of review, and as an example, independent claim 18 sets forth:

"[a] broadcasting receiver which receives a digital broadcasting signal and an analog broadcasting signal, comprising:

- a tuning unit to selectively receive the digital or analog broadcasting signal; and
- a processing unit to process the digital or analog broadcasting signal in accordance with the selection by said tuning unit, and to synchronize phases of the digital and analog broadcasting signals upon the tuning unit changing selection between the digital or analog broadcasting signal."

Similar to above, independent claim 18 particularly claims that both the analog and digital broadcasting signals can be received. Further, again it is noted that the claimed alternative language is not limiting on only one or the other, but open to either, i.e., the common "and/or." The claim language "or" means that at least one of the claimed capabilities must be available.

The Office Action has interpreted Bestler et al. as disclosing a digital and/or analog receiver capable of tuning to either (or both) analog or digital broadcasting signals.

In disclosing the claimed synchronizing phases of the digital and analog broadcasting signals, the Office Action relies on a disclosure in Bestler et al., in col. 3, lines 61-65, that a digitized analog video can be combined with a digital mix of a digital video and On Screen Display

(OSD) data. The mixture can be performed by a digital mixer. See Bestler et al. in col. 4, lines 3-4. Thus, in Bestler et al., the analog video is digitized before being forwarded to a normalizer 70, which may then also mix digital video with that digitized analog video.

The Office Action indicates that Bestler et al. discloses the normalizer 70 as including a scan converter to convert either analog or digital signals to desired display formats, but this would not appear to be a proper interpretation of normalizer 70. As noted above, the normalizer 70 in Bestler et al. would rather appear to merely normalize or scan convert already digitized analog or digital video signals.

Regardless, using this disclosure of Bestler et al., the Office Action utilizes Furumiya et al. to disclose a synchronization between an analog signal and potentially a digital signal, stating that "Furumiya disclose extracting the synchronous signal from an incoming video signal, such as its 3.58 Mhz color burst and compensating for time-base error so that the video signal is properly displayed to the viewer." The Office Action indicates that Furumiya et al. teaches a method of synchronizing the phase of an analog video signal to the phase of the digital video signal: "the reference discloses separating the horizontal sync or burst component from an input analog signal and using this information to adjust the signal to a digital form." See Furumiya et al. in col. 7, line 33, through col. 8, line 4, wherein Furumiya et al. appears to be described as improving an A/D converter timing clock based on a sync signal from the input analog signal, i.e., the signal being converted by the A/D converter.

However, based on the above discussion regarding Bestler et al., it would not appear that Bestler et al. would need such a feature, as the interpreted feature cited in the Office Action, i.e., as Bestler et al. is only normalizing, mixing, or scan converting already digital signals (the analog video signal is digitized before normalizer 70), there would not appear to be any need to change the normalizer 70 of Bestler et al. to include the aforementioned phase compensating feature of Furumiya et al.

Further, as noted above, since Bestler et al. already digitizes the analog video signal before mixing with the digital video signal in normalizer 70, it would appear that the Office Action's interpretation of Furumiya et al. would more appropriately be applied to the A/D converter for the analog video signal, before normalizer 70. However, this modification of Bestler et al. would not appear necessary, as Bestler et al. would appear to work properly (i.e., already with synchronization) without the proffered modification.

With this in mind, as interpreted in the Office Action, Furumiya et al. uses a horizontal

sync from a signal to help convert that signal to a digital form, while independent claims 18 and 20 particularly differentiate the claimed digital signal and analog signal, i.e., they are not the same signal; the digital broadcast signal is not a digitized version of the analog broadcast signal, which is what the Office Action would appear to be setting forth as the obvious modification.

Thus, it would not appear to be necessary or obvious to modify Bestler et al. to include the phase synchronization feature, for A/D converters, described in Furumiya et al.

The Office Action would again appear to be setting forth that it would have been obvious to modify Bestler et al. to synchronize an analog signal with a digital signal, based on the disclosure Choi et al.

However, Choi et al. sets forth a process for synchronizing digital overlay information for overlaying that information on an analog signal, with that synchronizing being based on a sync signal of the analog signal.

First, it is noted that in Bestler et al., the OSD information is mixed with the digital video signal, so Bestler et al. would not appear to need this analog synchronization feature.

Further, even if combined with Bestler et al., again the combination would not disclose the presently claimed invention. Modifying Bestler et al. to overlay OSD information on the analog signal would occur before normalizer 70, and would not concern the claimed digital broadcasting signal. Similar to above, with Furumiya et al., this synchronization feature would only appear applicable to modifying an analog signal to synchronize an overlay of a digital signal, e.g., OSD information.

The presently claimed invention particularly claims the receivable analog broadcasting signal, the receivable digital broadcasting signal, and a to "synchronize phases of the digital and analog broadcasting signals." If Bestler et al. were modified to include the feature of Choi et al., this claimed feature still would not be disclosed. In addition, even if the totality of the teaching of both Choi et al. and Furumiya et al. were taken into consideration, only the present application would disclose the motivation for modifying Bestler et al. in the particularly claimed manner.

Therefore, it is respectfully submitted that it would not have been obvious to combine Bestler et al., Choi et al., and/or Furumiya et al., alone or together, to disclose the presently claimed invention. As the rejection of claim 20 relies on the same rationale as the rejection of claim 18, it is respectfully submitted that the above comments similarly apply.

Lastly, it is noted that independent claims 18 and 20 further claim "synchroniz[ing] phases

of the digital and analog broadcasting signals upon the tuning unit changing selection between the digital or analog broadcasting signal."

None of Bestler et al., Choi et al., nor Furumiya et al. disclose this particular required happening or the claimed synchronizing upon that happening, i.e., happening upon the changing of a selection between the digital or analog broadcasting signals.

Therefore, for at least the above, it is respectfully requested that this rejection of claims 18-20 be withdrawn and claims 18-20 be allowed.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

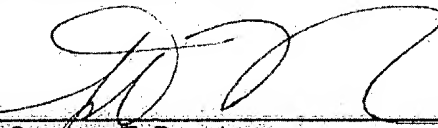
Respectfully submitted,

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